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# A study of the occupational adjustment of the graduates of the industrial arts curriculum of South High school for a twelve year period

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# A STUDY OF THE OCCUPATIONAL ADJUSTMENT OF THE GRADUATES OF THE INDUSTRIAL ARTS CURRICULUM OF SOUTH HIGH SCHOOL FOR A TWELVE YEAR PERIOD

by

R. E. McConnell

A thesis submitted in partial fulfilment of the requirements for the degree of Master of Arts.

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# INTRODUCTION

Any program in progressive education must recognize the fact that its main objective is to prepare individuals for effective participation in the activities of every day life. The need in education today is to more closely correlate the life of the boy in school with his life after graduation. Schools and industry have reached a point at which an evaluation of common goals is necessary.

A large percentage of students in high school today must think in terms of the vocation which they wish to follow after graduation rather than of the social or cultural considerations which may be offered by the school. As an evidence[1] of this fact, we find that about ninety per cent of the graduates of South High School must, because of economic necessity, find work as soon as they have graduated. The school records show that the following conditions prevail:

(1) On the average, 7.3 per cent of the high school graduates attend higher institutions of learning;

(2) Only 60 per cent of those who enter high school complete the four year course and receive a diploma;

(3) 90 per cent of the high school population, including drop-outs and graduates, attempt to obtain jobs in industry and trade.

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[1] South High School, Office Records, Omaha, Nebraska 1927-1938

It is necessary, therefore, for the school to aid the student in discovering those capacities, aptitudes, and interests which he possesses, to the end that he may utilize these to the best advantage when seeking employment.

South High School is a four-year public high school in Omaha, Nebraska. It is located near the second largest meat-packing industry in the United States. Many of the graduates and former students of the high school obtain employment in these packing houses. In addition to this industry, Omaha has several other large industries which employ many of the graduates of South High School. Among these industries are the Nebraska Power Company, the Metropolitan Utilities District, and the Union Pacific Railroad.

During the years considered in this study, the average yearly enrollment of South High School has grown from 1500 students in 1926 to 3400 students at the present time. Because of the large enrollment it was possible to obtain a sufficient spread of data to give a fair sampling for this study.

The purpose of this study is to determine the relationship between the course followed by the student while in high school, his vocational intention while in high school, and the job which, as a graduate, he is now holding. The requirements of beginning jobs will also be compared with the preparation which the school affords.

The study which is here reported has sought to throw light on certain questions in the fields of guidance and curriculum revision. The study has not been an attempt to evaluate the outcomes of guidance, for the students included had not had the advantage of organized guidance service.

This report recognizes at the outset the necessity of general education as a preparation for all work. However, in order to be specific, we will in this study consider only industrial arts education and its contribution to the occupational adjustment of graduates of South High School.

It should be understood that industrial courses as conducted at South High School are not vocational courses in the broad sense, since they do not train students for immediate entrance into a specific trade. The different courses in industrial arts are designed to provide general training in fundamental skills, which may be utilized during a period of apprenticeship in industry.

This type of training is in line with current trends in industrial arts education. Norton[1] wrote recently in a much-discussed report on education in New York state:

> "Industrial Arts education is a study of industry, its origin, development, activities, products, and their effects upon human life;

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[1]Norton, Thomas L. Education for Work. The Regents Inquiry, New York: McGraw Hill, 1938 p 122

> it is developed through construction work with shop tools and materials, together with discussions, readings, investigations, and experimental work.

In a recent book by Belting and Clevenger[1] we find a similar statement:

> At a time when machine industry looms so large in the life of society it seems highly desirable that the high school give considerable amount of work that is of the broadest significance in an industrial age, rather than to provide exclusively for the development of skills that have a market value only.

Certain studies have been made regarding the occupational adjustment of high school graduates. In Minneapolis follow-up studies have been made since 1926, at three year intervals, of the occupational distribution of the high school graduates one year after graduation. In 1935, Wright[2] reporting on the graduates of 1934, found 36.06 per cent of the boys at work, 33.22 per cent at school, and 18.78 per cent unemployed. A similar study[3] by the same writer in 1938 showed 38.47 per cent of the boys in the 1937 class at work, 38.68 per cent at school, and 15.04 per cent unemployed.

Proctor[4] in 1937 reported a study of a group of

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[1]Belting, Paul E. and Clevenger, A. W. The High School at Work. New York: Rand McNally and Company, 1939 p 370.

[2]Wright, Barbara H., "A Follow-Up of 1934 Graduates," Occupations XV (1936) 41-45.

[3]Wright, Barbara H., et al, Follow-Up Study of the High School Graduates of June 1937. Division of Instruction, Minneapolis Public Schools, Minneapolis, Minnesota.

[4]Proctor, William M. "A Thirteen Year Follow-Up of High School Pupils," Occupations XV (1937) 306-310.

students 13 years after graduation. Of this group 23.3 per cent were engaged in the occupation which they had chosen thirteen years before.

Pavan[1] reports an occupational follow-up of Philadelphia high school graduates two years after graduation. In 1937 she found that 25 per cent of the 1935 graduates were attending school, 59 per cent were at work, and 14 per cent were unemployed.

Cromwell[2] found in a study of 156 boys who had been out of school for periods of from five to ten years that some use of shop training was made in 77 per cent of the subsequent occupations.

Campbell[3] reported that "of the 187 men studied, 51 per cent stated that they took high school industrial arts in partial preparation for their vocations; 49 per cent were influenced by industrial arts training in making choices of vocations."

A writer[4] in Nation's Business makes a statement which presents a challenge. He says, among other things, that "a high school education does not fit a boy for a single solitary position in an industrial organization."

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[1]Pavan, Ann. "A Follow-Up Study of Philadelphia Public School Graduates," Occupations XVI (1937) 252-259

[2]Cromwell, Eskin E., "Contribution of Shop-work Instruction to the Subsequent Occupation," Industrial Education (XXXVIII) May, 1936, 128

[3]Campbell, H. V., "Influence of Industrial Arts Experience on the Subsequent Occupation," Industrial Education (XXXVI) November, 1934, 253

[4]Hellman, Lui F., "What Shall We Do With Them?" Nation's Business, March, 1938, 32

To determine whether a criticism of this kind is justified is one of the problems to be considered in this dissertation.

The following questions will be considered:

1. How are young men from the industrial arts courses of South High School occupied after graduation?
2. What kinds of jobs have these high school graduates succeeded in obtaining?
3. What are the factors which determine beginning employment?
4. To what extent do young men from the industrial arts courses find work in industry?
5. Does it seem necessary to reorganize the industrial arts curriculum in order to meet the demands of industry?
6. Could these graduates have had better counselling or better training, in view of the type of jobs they now hold?

# CHAPTER I

## METHODS AND DEVICES USED

The plan for the research made necessary a preliminary study in which information about graduates of the industrial courses of the high school was collected. The data consisted of the name, address, year graduated, course in high school, vocational choice, and occupation now followed by the graduate. The first five items were obtained, in the main, from official records of South High School. Class annuals, the files of the school paper, and the records of class sponsors were also consulted.

The sixth item, occupation now followed, was determined by consulting the departmental records in the high school, by telephone calls to the individuals, by personal contacts with the graduate, and by consulting the city directory. Information was obtained concerning 851 graduates. Since this material is of a personal nature, the original copies will be found in the files of the investigator.

The information obtained from these sources was then tabulated and arranged according to the year of graduation and occupation followed by each graduate. As a result of this tabulation it was found that the graduates were engaged in one hundred three different occupations. The numbers engaged in these occupations each year will be found in Table I.

TABLE I

NUMBER OF GRADUATES OF INDUSTRIAL ARTS COURSES ENGAGED IN THE DIFFERENT OCCUPATIONS, BY YEAR

| OCCUPATION | SCHOOL YEAR | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 26-7 | 27-8 | 28-9 | 29-30 | 30-1 | 31-2 | 32-3 | 33-4 | 34-5 | 35-6 | 36-7 | 37-8 | TOTALS |
| Aircraft Industry | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 3 |
| Actor | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Air Conditioning | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 |
| Apprentice Auto Mechanic | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 2 | 3 | 4 | 13 |
| " Boiler Maker | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 3 |
| " Carpenter | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 3 |
| " Electrician | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 5 |
| " Engraver | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| " Lens Grinder | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 4 |
| " Machinist | 0 | 1 | 1 | 0 | 0 | 0 | 2 | 2 | 1 | 7 | 3 | 2 | 19 |
| " Metal Worker | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 2 |
| " Moulder | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 3 |
| " Painter | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 1 | 6 |
| " Plumber | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| " Printer | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 4 | 2 | 2 | 6 | 17 |
| " Pattern Maker | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| " Upholsterer | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| " Welder | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Auto Mechanic | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 5 |
| Bank Clerk | 0 | 1 | 1 | 0 | 0 | 0 | 2 | 1 | 1 | 0 | 0 | 0 | 6 |
| Boiler Maker | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Buyer Merchandise | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |

TABLE I (Continued)

| OCCUPATION | SCHOOL YEAR | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 26-7 | 27-8 | 28-9 | 29-30 | 30-1 | 31-2 | 32-3 | 33-4 | 34-5 | 35-6 | 36-7 | 37-8 | TOTALS |
| Buyer Live Stock | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Brewer | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| Brewery Worker | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 1 | 0 | 0 | 5 |
| Barber | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 |
| Baker | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 5 |
| Bell Boy | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 |
| Bartender | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 6 |
| Blacksmith | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 |
| Bookkeeper | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 4 |
| Bookbinder | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 2 |
| Brush Maker | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| Butcher | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Business Manager | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 6 |
| Carpenter | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 2 | 6 |
| Cabinet Maker | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 |
| Carpet Layer | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Clerk | 1 | 5 | 4 | 8 | 8 | 14 | 11 | 8 | 14 | 6 | 9 | 6 | 94 |
| Chemist | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 1 | 4 |
| Cleaner, Dry | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 3 |
| Caddy | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| C. C. C. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 3 |
| Cook | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Deceased | 1 | 1 | 1 | 0 | 2 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 8 |

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TABLE I (Continued)

| OCCUPATION | SCHOOL YEAR | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 26-7 | 27-8 | 28-9 | 29-30 | 30-1 | 31-2 | 32-3 | 33-4 | 34-5 | 35-6 | 36-7 | 37-8 | TOTALS |
| Doctor, M. D. | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 |
| Dentist | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Designer | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Deliveryman | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Draftsman | 2 | 4 | 0 | 1 | 0 | 0 | 1 | 2 | 0 | 1 | 1 | 1 | 13 |
| Electrician | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 |
| Engineer, Stationary | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 3 |
| Engineer, College | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| Embalmer | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Farmer | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 2 | 0 | 2 | 1 | 9 |
| Foreman | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 |
| Florist | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Factory, Leather | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 2 |
| Factory, Brush | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Fireman, City | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Fireman, Stationary | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 |
| Fireman, Locomotive | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Helper | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 5 |
| Janitor | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 3 |
| Laborer, Common | 0 | 3 | 5 | 4 | 3 | 7 | 12 | 14 | 17 | 7 | 10 | 5 | 87 |
| Mechanic | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| Musician | 0 | 0 | 1 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 2 | 1 | 7 |
| Messenger | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 2 | 8 |

TABLE I (Continued)

| OCCUPATION | SCHOOL YEAR 26-7 | 27-8 | 28-9 | 29-30 | 30-1 | 31-2 | 32-3 | 33-4 | 34-5 | 35-6 | 36-7 | 37-8 | TOTALS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Minister | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Metal Worker | 1 | 1 | 0 | 1 | 0 | 0 | 4 | 2 | 1 | 0 | 0 | 0 | 10 |
| Newspaperman | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 3 |
| N. Y. A. | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 2 |
| Not Located or Moved Away | 4 | 3 | 7 | 12 | 15 | 10 | 12 | 9 | 9 | 4 | 4 | 6 | 95 |
| Oilburner Inst. | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Packing House Laborer | 2 | 3 | 2 | 6 | 7 | 6 | 4 | 11 | 10 | 7 | 0 | 3 | 61 |
| Packing House Grader | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| Packing House Inspector | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| Porter | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 |
| Printer | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 0 | 2 | 2 | 0 | 0 | 10 |
| Printer, Press | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Printer, Lino. | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Police Force | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| Repairman, Electric | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 3 |
| Salesman | 4 | 3 | 2 | 5 | 5 | 1 | 1 | 5 | 1 | 3 | 0 | 0 | 30 |
| Sign Painter | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 5 |
| Scaleman | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 4 |
| Switchman | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 2 |
| Surveyor | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Steamfitter | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Street Car Operator | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Student, College | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 6 | 1 | 7 | 4 | 3 | 24 |

TABLE I (Continued)

| OCCUPATION | SCHOOL YEAR | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 26-7 | 27-8 | 28-9 | 29-30 | 30-1 | 31-2 | 32-3 | 33-4 | 34-5 | 35-6 | 36-7 | 37-8 | TOTALS |
| Student, Other | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 1 | 3 | 1 | 0 | 6 | 14 |
| Stenographer | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 1 | 0 | 0 | 4 |
| Service Man | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 4 | 3 | 3 | 2 | 2 | 17 |
| Stockman, Merchandise | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 5 |
| Tire Repairman | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Teacher | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 4 |
| Truck Driver | 0 | 3 | 3 | 2 | 3 | 0 | 2 | 5 | 1 | 3 | 3 | 1 | 26 |
| Timekeeper | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Unemployed | 1 | 0 | 0 | 0 | 4 | 1 | 3 | 3 | 2 | 3 | 3 | 8 | 28 |
| U. S. Army | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 3 | 7 |
| U. S. Navy | 0 | 0 | 0 | 0 | 1 | 1 | 4 | 1 | 4 | 0 | 4 | 3 | 18 |
| U. S. Marines | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| U. S. Gov't. | 0 | 1 | 0 | 1 | 1 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 6 |
| Upholsterer | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 4 |
| W. P. A. | 0 | 0 | 0 | 0 | 2 | 1 | 1 | 1 | 2 | 0 | 1 | 0 | 8 |
| Warehouseman | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 1 | 0 | 2 | 0 | 0 | 6 |
| Watchman | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| Watch Maker | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Welder | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Yardman | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 2 | 0 | 0 | 5 |

The information in Table I was next summarized to find the general occupational distribution. It was necessary to do this in order to determine the number and the percentage at work. They were grouped as to whether they were at work, at school, unemployed, with CCC and similar organizations, in the Army or Navy, deceased, or moved away and not located. A summary was made for each year and the totals for the twelve year period were obtained. The results show that 75.4 per cent of the men at work and 3.3 per cent are unemployed. The graduates who have continued their education make up 4.5 per cent of the total number. The CCC and the Army and Navy have 1.5 per cent and 3.2 per cent respectively. Since the youth organizations were not created until 1932, the totals for these occur only after that time. The figures for the CCC are significant in that such a small number have entered these organizations. This occupational distribution is shown in Table II.

It was not feasible to determine the occupation followed by each student each year after graduation. The status of employment was determined for all graduates, at the same time, June 1938. The time elapsed since graduation varies from one to eleven years.

TABLE II

OCCUPATIONAL DISTRIBUTION OF 851 GRADUATES OF INDUSTRIAL ARTS

COURSES OVER A PERIOD OF TWELVE YEARS, 1926-1938

| No. of Graduates | | YEAR OF GRADUATION | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 37-38 | 36-37 | 35-36 | 34-35 | 33-34 | 32-33 | 31-32 | 30-31 | 29-30 | 28-29 | 27-28 | 26-27 | TOTALS |
| | | 80 | 73 | 97 | 93 | 103 | 99 | 63 | 76 | 52 | 49 | 39 | 27 | 851 |
| At Work | No. | 50 | 54 | 79 | 70 | 82 | 76 | 47 | 49 | 40 | 41 | 34 | 20 | 642 |
| | % | 62.5 | 74.0 | 81.4 | 75.27 | 79.6 | 76.8 | 74.5 | 64.47 | 77.0 | 83.5 | 87.2 | 74.2 | 75.4 |
| At School | No. | 9 | 4 | 8 | 4 | 7 | 3 | 1 | 2 | 0 | 0 | 0 | 0 | 38 |
| | % | 11.2 | 5.5 | 8.25 | 4.3 | 6.8 | 3.03 | 1.58 | 2.63 | - | - | - | - | 4.5 |
| Unemployed | No. | 8 | 3 | 3 | 2 | 3 | 3 | 1 | 4 | 0 | 0 | 0 | 1 | 28 |
| | % | 10.0 | 4.1 | 3.1 | 2.15 | 2.91 | 3.03 | 1.58 | 5.27 | - | - | - | 3.7 | 3.3 |
| CCC. NYA. WPA. | No. | 0 | 4 | 1 | 2 | 1 | 1 | 2 | 2 | 0 | 0 | 0 | 0 | 13 |
| | % | - | 5.5 | 1.03 | 2.15 | .97 | 1.01 | 3.2 | 2.63 | - | - | - | - | 1.5 |
| Army or Navy | No. | 7 | 4 | 1 | 4 | 1 | 4 | 2 | 2 | 0 | 0 | 1 | 1 | 27 |
| | % | 8.8 | 5.5 | 1.03 | 4.3 | .97 | 4.04 | 3.2 | 2.63 | - | - | 2.56 | 3.7 | 3.2 |
| Moved away or not located | No. | 6 | 4 | 4 | 9 | 9 | 12 | 10 | 15 | 12 | 7 | 3 | 4 | 95 |
| | % | 7.5 | 5.5 | 4.13 | 9.68 | 8.73 | 12.1 | 15.9 | 19.8 | 23.0 | 14.3 | 7.68 | 14.8 | 11.2 |
| Deceased | No. | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 2 | 0 | 1 | 1 | 1 | 8 |
| | % | - | - | 1.03 | 2.15 | - | - | - | 2.63 | - | 2.2 | 2.56 | 3.69 | .9 |

The data in Table I covering those at work, or 75.4 per cent of the total number of graduates, was next analyzed and the occupations were grouped in a manner similar to the classification of the United States Employment Service. From this analysis we have the following distribution:

TABLE III

| | Number | Per Cent |
|---|---|---|
| Professional and Kindred Workers | 31 | 4.83 |
| Sales | 38 | 5.92 |
| Clerical Workers | 108 | 16.82 |
| Craftsmen, including apprentices | 165 | 25.70 |
| Semi-skilled Workers | 93 | 14.49 |
| Unskilled Workers | 170 | 26.48 |
| Service | 37 | 5.76 |
| | 642 | 100.00 |

From this distribution it is seen that the major group of workers, other than the unskilled, is the craftsmen. This group, with the semi-skilled, comprises 40.19 per cent of those at work. In this study we shall use the group of craftsmen, or skilled workers, as a basis for finding the correlation between industrial arts work in school and the actual condition in industry.

Different agencies vary in their classifications of occupations. The United States Employment Service uses a classification quite different from that used by the United States Census Bureau. In this study an adaptation is used, with the explanation given at the beginning of each group.

TABLE IV

OCCUPATIONAL DISTRIBUTION OF GRADUATES WHO ARE AT WORK

1 Professional and Kindred Workers

"--those workers who possess superior intelligence and background of training that includes a minimum of a college education or a special technical course of two or more years in duration."

| | |
|---|---|
| Actor | 1 |
| Chemist | 4 |
| Dentist | 1 |
| Doctor | 2 |
| Embalmer | 1 |
| Engineer, Stationary | 3 |
| Engineer, College | 3 |
| Minister | 1 |
| Musician | 7 |
| Newspaper | 3 |
| Surveyor | 1 |
| Teacher | 4 |
| | 31 |

2 Sales

"--those persons directly identified with transactions in the exchange of commodities, services, or investments."

| | |
|---|---|
| Buyer, Merchandise | 1 |
| Buyer, Livestock | 1 |
| Business Manager | 6 |
| Salesman | 30 |
| | 38 |

3 Clerical Workers

"--those persons engaged in preparing, transferring, transcribing, systematizing, or preserving written communications and records."

| | |
|---|---|
| Bank Clerk | 6 |
| Bookkeeper | 4 |
| Clerk | 94 |
| Stenographer | 4 |
| | 108 |

4 Craftsmen, including apprentices

"--those persons whose work requires that they have a long period of training, possess a high degree of manual dexterity, and exercise considerable independent judgment."

| | |
|---|---|
| Aircraft | 3 |
| Air Conditioning | 2 |
| Apprentices | 81 |
| Auto Mechanic | 5 |
| Baker | 5 |
| Blacksmith | 2 |
| Bookbinder | 2 |
| Boiler maker | 1 |
| Brewer | 2 |
| Butcher | 1 |
| Cabinet maker | 2 |
| Carpenter | 6 |
| Designer | 1 |
| Draftsmen | 13 |
| Electrician | 2 |
| Fireman, Locomotive | 1 |
| Fireman, Stationary | 2 |
| Mechanic | 5 |
| Metal Worker | 10 |
| Printer | 12 |
| Steamfitter | 1 |
| Upholsterer | 4 |
| Watch maker | 1 |
| Welder | 1 |
| | 165 |

5 Semi-skilled

"--those persons whose work requires little independent judgment but considerable manual dexterity."

| | |
|---|---|
| Brush maker | 2 |
| Carpet layer | 1 |
| Cleaner | 3 |
| Cook | 1 |
| Factory worker | 3 |
| Farmer | 9 |
| Florist | 1 |
| Foreman | 2 |
| Government (Civil Service) | 6 |
| Helper | 5 |
| Oil burner installer | 1 |
| Packing House | 5 |
| Scaleman | 4 |
| Sign painter | 5 |
| Switchman | 2 |
| Streetcar operator | 1 |
| Stockman | 5 |
| Tire Repairman | 4 |
| Truck driver | 26 |
| Timekeeper | 1 |
| Warehouseman | 6 |
| | 93 |

6 Unskilled

"--those persons who do simple, rough work."

| | |
|---|---|
| Brewery worker | 5 |
| Caddy | 2 |
| Labor, Common | 87 |
| Labor, Pecking House | 61 |
| Messenger | 8 |
| Watchman | 2 |
| Yardman | 5 |
| | 170 |

7 Service Workers

"--those persons who clean and care for buildings, streets, or wearing apparel, or who prepare or serve food."

| | |
|---|---|
| Barber | 2 |
| Bellboy | 2 |
| Bartender | 6 |
| Delivery man | 1 |
| Fireman, City | 1 |
| Janitor | 3 |
| Police | 3 |
| Porter | 2 |
| Service Station | 17 |
| | 37 |

The next step was to determine the vocational choice of the industrial arts graduates. They had indicated their choice while seniors in high school. This information was classified and tabulated as shown in Table VI. Thirty-one different occupations were chosen, each of which bears a relationship to the course followed. Fourteen of the thirty-one or more than forty-five per cent are directly related. These fourteen vocations account for more than seventy per cent of the total number of choices.

The number of different occupations followed by these same graduates, as determined from Table I, is one hundred three. This is three times the number which they had indicated as their choice while in high school. It is reasonable to suppose, therefore, that the graduate will have one chance in three of getting into the occupation which he has chosen.

By comparing Table I and Table VI we have the following conditions concerning possible employment in the vocation as chosen by the graduate while a student in high school:

40 chose aviation for a career and 3 are actually engaged in this vocation.

75 wished to be draftsmen and 13 are working at this vocation.

92 wished to be printers and 29 are engaged as such, as apprentices or journeymen.

30 wished to be machinists and 19 are apprentice machinists.

82 wanted to be auto mechanics and 18 are working at that trade.

9 wanted to be farmers and 9 are farmers.

6 expected to enter the navy but 27 are in the army or navy.

62 wanted to become engineers while 6 are now engaged as engineers.

11 wanted to enter radio work but no one is actually engaged in the work.

28 wanted to be cabinet makers or carpenters and 8 are engaged in this work.

The relation between those who wished to enter the vocation and those who actually entered is shown in Table V.

TABLE V

RELATION BETWEEN CHOICE OF VOCATION AND ACTUAL OCCUPATION

| | Number Who Chose | Number Engaged In | Relation |
|---|---|---|---|
| Aviation | 40 | 3 | 1 in 13 obtained employment |
| Auto Mechanic | 82 | 18 | 1 in 4.6 " " |
| Draftsman | 75 | 13 | 1 in 6 " " |
| Carpenter | 28 | 8 | 1 in 3.5 " " |
| Farmer | 9 | 9 | 1 in 1 " " |
| Printer | 92 | 29 | 1 in 3.2 " " |
| U. S. Navy, etc. | 6 | 27 | 4.5 to 1 " " |
| Machinists | 30 | 19 | 1 in 1.6 " " |
| Radio | 11 | 0 | 0 in 1 " " |
| Engineer | 62 | 6 | 1 in 10 " " |

TABLE VI

CHOICE OF VOCATION OF INDUSTRIAL ARTS GRADUATES
OF SOUTH HIGH SCHOOL

| VOCATION | SCHOOL YEAR | | | | | | | | TOTALS |
|---|---|---|---|---|---|---|---|---|---|
| | 30-1 | 31-2 | 32-3 | 33-4 | 34-5 | 35-6 | 36-7 | 37-8 | |
| Architect | 4 | 1 | 8 | 3 | 7 | 7 | 4 | 1 | 35 |
| Aviator | 5 | 6 | 7 | 6 | 9 | 3 | 3 | 1 | 40 |
| Actor | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Business | 3 | 3 | 4 | 1 | 3 | 2 | 2 | 1 | 19 |
| Book binder | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 |
| Baseball Player | 0 | 1 | 0 | 0 | 2 | 2 | 0 | 0 | 5 |
| Carpenter | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 2 | 6 |
| Coach | 2 | 1 | 2 | 0 | 3 | 1 | 1 | 0 | 10 |
| Contractor | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Cabinet Maker | 3 | 2 | 2 | 1 | 4 | 7 | 2 | 1 | 22 |
| Chemist | 2 | 0 | 1 | 3 | 1 | 1 | 1 | 0 | 9 |
| Civil Service | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 4 | 6 |
| Draftsman | 13 | 7 | 8 | 7 | 5 | 17 | 9 | 9 | 75 |
| Engineer | 4 | 9 | 10 | 3 | 10 | 12 | 6 | 8 | 62 |
| Electrician | 4 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 7 |
| Farmer | 1 | 3 | 1 | 0 | 1 | 2 | 0 | 1 | 9 |
| Lawyer | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Machinist | 1 | 2 | 7 | 2 | 1 | 4 | 3 | 10 | 30 |
| Musician | 1 | 1 | 2 | 0 | 2 | 0 | 1 | 4 | 11 |
| Mechanic, Auto | 3 | 6 | 14 | 7 | 15 | 12 | 15 | 10 | 82 |
| Movie Operator | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| Printer | 6 | 7 | 15 | 6 | 18 | 14 | 17 | 9 | 92 |

TABLE VI (Continued)

| VOCATION | SCHOOL YEAR | | | | | | | | TOTALS |
|---|---|---|---|---|---|---|---|---|---|
| | 30-1 | 31-2 | 32-3 | 33-4 | 34-5 | 35-6 | 36-7 | 37-8 | |
| Pattern Maker | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| Rancher | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| Reporter | 0 | 2 | 2 | 0 | 2 | 0 | 0 | 2 | 8 |
| Radio | 1 | 0 | 3 | 2 | 0 | 3 | 0 | 2 | 11 |
| Salesman | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 3 |
| U. S. Navy | 0 | 0 | 1 | 2 | 1 | 0 | 1 | 1 | 6 |
| Veterinarian | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Wrestler | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 2 |
| Welder | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 3 |

Information concerning vocational choice was not available for the years 1926 to 1929.

## SUMMARY

The method as developed in this study is a comparison of the occupations now followed by 851 graduates of the industrial arts curriculum with the declared vocational intention of such graduates at the time of their graduation. An analysis was made of the requirements of the beginning jobs in the most frequently entered occupations of these graduates. The criteria investigated included age, education, physical fitness, skill, factual knowledge, and personal qualities required of the graduates in beginning jobs.

The plan followed for collecting the information in this survey was as follows:

1. Personal data was collected concerning each graduate of the industrial arts curriculum.
2. The occupational distribution of the graduates was determined to find the group for sampling.
3. The vocational intention of the graduates was investigated to find the correlation with the job now held.
4. Employment requirements for beginning jobs were investigated through the employers and the employees.
5. The training which the school offers was checked with the requirements as found in (4).

Sex was not included in the personal data collected, since the group studied were known to be all males.

It was thought best not to include school marks or I. Q. scores in this study since others have reported that there seems to be little relationship between high school marks and the ability to find work.

Thorndike[1] found that "among those who engage in mechanical work, success in school and scores in intelligence tests are nearly valueless, and nearly equally so in predicting earnings, level of work, and interest in work." Wright[2] found that "the relationship between high school marks and ability to get work is not so apparent, although there is an indication that on the whole those who receive just average marks at school are most likely to obtain employment. . . . . It is, of course, illogical to argue from this that there is a causal relationship between scholastic record and post-school adjustment."

Averages, medians, and percentages have been used in this study where it is necessary to determine the value of a tabulation of analysis. The arithmetic mean and median are most commonly used as a measure of central tendency, according to Newkirk and Greene.[3]

In checking the preparation of the graduate against the requirements of the job now held, it is necessary first of all to observe the requirements of the course

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[1]Thorndike, Edward L. Prediction of Vocational Success. New York: The Commonwealth Fund, 1934, p.54.

[2]Wright, op. cit. p. 45.

[3]Newkirk, Louis V., and Green, Harry A. Tests and Measurements in Industrial Education. New York: John Wiley and Sons, 1935, p. 193.

of study in industrial arts. The constants, or required subjects, in all courses are three years of English and three years of history and social science.

For the remainder of the subjects, the first two years are exploratory in nature. These two years provide single periods for exploration in drafting, science, woodworking, printing, metal working, and mathematics. In the last two years of high school the student spends more time in the shops and laboratories of his choice, with two periods as a minimum. A wide choice of electives is available which permits the student to continue his exploration if he so desires. A student may, if he wishes to do so, use the industrial arts courses for college entrance in technical or engineering courses.

## CHAPTER II

## QUESTIONNAIRES AND FINDINGS

After an analysis of the problem it was decided to use the questionnaire method to obtain the information concerning employment requirements. Two questionnaires were prepared, one to be submitted to employers, the other to the graduates or employees. The questionnaires service as a check on each other.

### A. Questionnaire to Employers

In order to determine the factors which result in an applicant obtaining employment in industry, several employer-interviews were obtained with five employers in different industries. The object of these interviews was to find out (1) the personal qualities which an employer is desirous that his employees shall have and (2) the training and education necessary to obtain and hold down various jobs.

The term, personal qualities, as used in (1) was determined as a result of conferences with these employers. Jones[1] in his text on guidance uses two terms, "personality traits" and "character traits." He also refers to Hughes[2] definition of "individual capacities, attitudes, and interests." To the writer and to the employers it seemed best to call the traits "personal qualities."

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[1] Jones, Arthur J., Principles of Guidance. New York: McGraw Hill, 1934, 166.

[2] Hughes, W. Hardin, "A Rating Scale for Individual Capacities, Attitudes, and Interests," The Journal of Educational Method, III, October, 1923, 56-65.

As a basis for these interviews, a tentative questionnaire was prepared which contained a list of personal qualities which might be considered essential to employment. This list is a composite of the qualities used by a personnel manager[1] in an interview rating chart and those qualities selected by Prosser.[2] This composite list was cross-checked with a "Qualification Rating Scale"[3] which had been established through employer-contacts. These sources gave a list of twenty-four qualities.

PERSONAL QUALITIES

ability to follow instructions
accuracy
aggressiveness
alertness
ambition
appearance
common sense
concentration
creative ability
honesty
initiative
imagination
judgment
leadership
loyalty
neatness
observing
personality
punctuality
reliability
self-confidence
sincerity
speed
tact

As a result of these employer-interviews some qualities were eliminated as having no bearing on employment requirements. Others having similar meaning were combined. On quality, tact, was defined as "ability to get along with others" and is so designated in the final questionnaire.

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[1]George, Wally E., "Interview Rating Chart," Factory Management and Maintenance, July, 1937.

[2]Prosser, C. A., and Palmer, R. H. Selecting an Occupation. Bloomington, Illinois: McKnight and McKnight, 1936, 80-1.

[3]Barrett, Theodore. What About Jobs? New York: McClure Publishing Company, 1936, 29-64.

The twelve qualities which were selected as having a definite bearing on beginning employment are: personal appearance, self-confidence, ambition, reliability, honesty, common sense, personality, ability to follow instructions, accuracy, ability to get along with others, observing, and loyalty.

The tentative questionnaire contained spaces for listing employment requirements as to age, education, special subjects, and training. From these suggestions the final questionnaire was prepared. This form will be found in the appendix.

The questionnaire was then submitted in personal interviews to twenty-four different employers. The most frequently entered occupations as determined from the data in Table III were used as a basis for contacting employers. In this way information was obtained from employers in the same industries as those which the graduates had entered.

The data from the questionnaires, which had been submitted to twenty-four different employers, was arranged in tabular form for study. The firm name and address have no particular bearing on the problem, except that the firms are located in the area served by South High School. The type of job varies greatly, but all are rated as beginning jobs. The data was obtained on fifteen different jobs. The type of product varies, as is natural in an industrial community. The manufacturing processes in every case require mechanical ability.

TABLE VII

NUMBER OF EMPLOYEES IN DIFFERENT INDUSTRIES

| Number of Employees | Number of Companies Who Employ |
|---|---|
| 1-5 | 9 |
| 6-10 | 5 |
| 11-15 | 4 |
| 16-20 | 1 |
| 21-25 | 0 |
| 26-30 | 3 |
| 31-35 | 1 |
| 36-40 | 1 |

Number of employees - 288 Number of employers - 24

Average number of employees - 12

The answers given to the question relating to age for beginning employment varied from sixteen to twenty-two, with the median at eighteen; the maximum age of beginning employment varied from eighteen to twenty-five with a median of nineteen. This supports the contention that age for beginning employment is rising. It is reasonable to suppose that this will be a problem which the schools will be forced to meet. It may result in a six-year rather than a four-year high school.

TABLE VIII

AGE OF EMPLOYMENT

| Age of Employment | Number of employers stating as minimum age | Number of employers stating as maximum age |
|---|---|---|
| 16 | 4 | 0 |
| 17 | 0 | 0 |
| 18 | 12 | 12 |
| 19 | 4 | 1 |
| 20 | 1 | 2 |
| 21 | 2 | 4 |
| 22 | 1 | 0 |
| 23 | 0 | 0 |
| 24 | 0 | 0 |
| 25 | 0 | 5 |
| | Median 18 | Median 19 |

The question regarding health requirements for employees was answered thus: All employers said that there should be a physical examination, but that it was required by none. The only requirement is that the prospective employee be in apparent good health, and that he shall have no physical defects. An exception to to this last requirement was taken by three different firms who said they can and do employ people hard of hearing. These employers are engaged in the printing or machine shop industry. They, as well as all others, do require good eyesight, and want the prospective employee not to have mutilated hands. The reason given is that a missing finger may indicate careless

habits and the person might become a liability as far as accidents are concerned. Due to unemployment insurance and disability compensation, the employer is especially careful as to the health of his employees.

The next question relating to extent of schooling found all but two employers requiring a high school education. Two more employers suggested further school work before employment. All employers stated that some form of related training is necessary while employed, and suggested night school and correspondence courses as sources of this training. Two of the employers conduct their own night school for employees, and require attendance on the employee's own time.

TABLE IX

NECESSARY EDUCATION AND TRAINING FOR EMPLOYEES AS DETERMINED BY THE EMPLOYERS

| Special Subjects | Number of Employers asking | Training or Skills | Number of Employers asking |
|---|---|---|---|
| English | 15 | Drafting | 15 |
| Shop Mathematics | 13 | Metal Working | 10 |
| Blue Print Reading | 13 | Woodworking | 5 |
| Science | 10 | Auto Mechanics | 3 |
| Algebra | 7 | Printing | 3 |
| Electricity | 3 | | |
| Geometry | 2 | | |

From Table IX it is evident that the employers desire that their employees study certain academic subjects and have fundamental shop skills.

The last question, "Do you look for definite personal qualities when hiring your employees?" was answered in the affirmative by all twenty-four employers. Then followed the list of twelve qualities to be ranked in order of their importance. Four employers ranked the qualities but made the comment that lack of any one of them would probably preclude employment.

In order to place some sort of an evaluation upon the ranking of these personal qualities, it was necessary to weight the choices as shown in Table X. Since there are twelve qualities, first choice was given a value of twelve, second choice a value of eleven, and so on. Thus, the largest total score will show the quality valued most highly.

Ranking the different personal qualities according to this method of evaluation, we obtained the following order: (1) Honesty (2) Common Sense (3) Reliability (4) Ambition (5) Ability to follow instructions (6) Accuracy (7) Self-Confidence (8) Personal appearance (9) Ability to get on with others (10) Loyalty (11) Observing (12) Personality.

Since the terms used in describing personal qualities might be interpreted differently by the various employers interviewed, the meaning of these terms was carefully

defined in terms of trait actions during the conference with the employer. The meaning of each quality as used in this dissertation is as follows:

Personal Appearance is based upon neatness, cleanliness, posture, manners, and speech.

Self-Confidence is confidence in one's self, a necessary quality for a good workman. It is based upon alertness and enthusiasm.

Ambition is a desire to get ahead--to better one's self in his position. It can be discovered only through conference with the individual, or while watching him on the job; initiative.

Reliability is a trait which implies a sense of duty--a desire to complete in a satisfactory manner a job once started; dependability; punctuality.

Honesty is an inherent quality which one either has or has not. It goes further than money matters, and is concerned with self-analysis and fairness.

Common-sense is another quality which is difficult to define. It means doing things the obvious way and looking at situations in the manner in which the group would.

Personality is the sum and total of all one's habits. It is expressed in all the things one does or says.

Ability to follow instructions means just that. Employers desire that a workman be sure he understands, then goes ahead.

Accuracy implies being right ninety-nine per cent of the time.

Ability to get along with others might be termed agreeableness, but it is more than that. One must be patient and reasonable as well and be able to get the other fellow's viewpoint. It is a matter of social relations; adaptability.

Observing means being aware of what is going on; alertness.

Loyalty implies giving full value for the wages received; cooperation; faithful.

## SUMMARY OF FINDINGS FROM EMPLOYERS' INTERVIEWS

1. The final rank of personal qualities indicates that personality does not deserve the high consideration which some employers or personnel managers think they give it.

2. Physical requirements vary with the type of job. Good health is a requirement.

3. A high school diploma is essential to beginning employment.

4. Honesty, which means more than cash-drawer honesty, is a quality which the individual must have if he expects steady employment.

5. English, mathematics, and science are regarded by the employer as a necessary background for their employees.

6. Shop work and drafting are rated by the employers as excellent pre-employment training.

TABLE X

PERSONAL QUALITIES AS RATED BY 24 EMPLOYERS

| Value | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Rank by Employer : | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
| QUALITY | Number Choosing | | | | | | | | | | | | Total Weighted Value |
| Personal Appearance | 0 | 2 | 3 | 1 | 3 | 0 | 0 | 2 | 1 | 0 | 4 | 4 | 111 |
| Self-Confidence | 1 | 0 | 3 | 2 | 2 | 2 | 2 | 3 | 0 | 2 | 1 | 2 | 127 |
| Ambition | 3 | 1 | 2 | 6 | 2 | 2 | 2 | 0 | 1 | 1 | 0 | 0 | 180 |
| Reliability | 2 | 5 | 3 | 3 | 2 | 2 | 2 | 1 | 1 | 0 | 0 | 0 | 187 |
| Honesty | 12 | 3 | 1 | 2 | 2 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 231 |
| Common Sense | 2 | 5 | 4 | 3 | 1 | 6 | 1 | 1 | 1 | 0 | 0 | 0 | 204 |
| Personality | 0 | 0 | 0 | 1 | 2 | 0 | 3 | 2 | 1 | 0 | 5 | 6 | 73 |
| Ability to follow instructions | 2 | 5 | 3 | 0 | 2 | 3 | 1 | 1 | 2 | 3 | 1 | 0 | 176 |
| Accuracy | 2 | 0 | 2 | 2 | 1 | 4 | 2 | 3 | 1 | 2 | 0 | 0 | 145 |
| Ability to get on with others | 0 | 2 | 1 | 0 | 2 | 0 | 3 | 3 | 2 | 4 | 2 | 1 | 106 |
| Observing | 0 | 0 | 1 | 2 | 1 | 1 | 1 | 2 | 5 | 1 | 3 | 2 | 93 |
| Loyalty | 0 | 1 | 1 | 2 | 1 | 2 | 1 | 1 | 3 | 5 | 1 | 1 | 102 |

Some employers ranked only the four or five qualities which they considered important. This accounts for the variation in the columns.

B. Questionnaire to Graduates.

In developing the questionnaire for graduates of South High School, the aim was to obtain information for checking against the job requirements as reported by the employers. The questions asked dealt with training received in high school, additional schooling, type of job, length of time the job was held, and factors in getting this job.

Personal information was requested relating to year of graduation, course followed, vocational intention while in high school, and any change in plans for a vocation. This information was used in checking against the original data in Table I.

Consideration of the original data for the 851 graduates of South High School showed that 165 or 25.7 per cent of the total number are now employed in skilled trades. This group of graduates was selected for sampling, for aside from the unskilled workers, this is the largest occupational group. Another reason for using this occupational group is that it should be best for determining the value of industrial arts training.

From these 165 graduates a random selection of ten was made for a try-out of the questionnaire. To each of these ten men the questionnaire was submitted in a personal interview in order to determine whether the desired information would be obtained. Upon checking over the results of these interviews, and finding that the desired results were

being obtained, it was decided to mail the questionnaire to a sampling from this entire group of graduates.

For this purpose the names and addresses of the graduates who are employed as skilled craftsmen or apprentices were taken from the original data. The names were arranged alphabetically and a questionnaire was mailed to every third name on the list, beginning with the first name. At the end of two weeks twenty-four questionnaires had not been returned; therefore, another group of questionnaires was sent out. For this sampling, we began with the second name on the list and included every third name. Questionnaires were mailed to these men in the same manner as in the first case.

The questionnaires sent out this time, with those previously sent out, and those obtained in personal interviews, made a total of 120. Many of the men who did not at first return the questionnaire were contacted by telephone and asked to make reply. Others who could not be reached by telephone were urged in a follow-up letter to make a reply. These methods brought a fair response.

The questionnaires returned and tabulated at the end of the first two weeks showed a pattern was developing. As the rest of the questionnaires were returned, and the results were tabulated, no variation in this pattern appeared. To insure the accuracy of the returns, the ten questionnaires obtained originally by interview were tabulated and still no new items developed. It seemed now that the sampling was adequate and that the results would be reliable.

TABLE XI

SUMMARY OF RETURNS ON QUESTIONNAIRES TO GRADUATES

| Subjects | Most Helpful Subject | Least Helpful Subject | Should have but did not take |
|---|---|---|---|
| English | 30 | 10 | |
| Science | 14 | 6 | |
| Music | 4 | 8 | |
| Typewriting | 8 | 2 | 24 |
| Algebra | 22 | 2 | |
| Geometry | 18 | | 2 |
| History | | 24 | |
| Modern Problems | | 12 | |
| Bookkeeping | 2 | 2 | 4 |
| Trigonometry | | 2 | 16 |
| Shop Mathematics | 18 | 2 | |
| <u>Shop Subjects</u> | | | |
| Drafting | 66 | | |
| Woodwork | 36 | | |
| Machine Shop | 16 | | 8 |
| Auto Mechanics | 4 | 6 | |
| Sheet Metal | 18 | 2 | |
| Electricity | 4 | | 6 |

TABLE XI, Continued

SUMMARY OF RETURNS ON QUESTIONNAIRES TO GRADUATES

| Factors in Getting a Job | Number designating |
|---|---|
| High school education | 74 |
| Work experience | 40 |
| Outside contacts | 36 |
| School shop training | 24 |
| Good health | 18 |
| Personal Qualities: | |
| Ambition | 48 |
| Persistence | 26 |
| Accuracy | 4 |
| Reliability | 4 |
| Adaptability | 6 |
| Courtesy | 10 |
| Common Sense | 4 |
| Willingness to work | 2 |
| Able to get along with boss | 8 |
| Good work habits | 2 |

The questionnaire to the graduates of South High School can be divided into two parts, the questions relating to high school curricula and the questions as to how they obtained a job.

In answer to the question regarding the subjects most helpful to the worker, the shop subjects are predominant. Since industrial arts courses attempt to correlate their work with that of industry, this finding appears reasonable. Next in order the workers state that English has helped them greatly. They refer both to written and spoken English. Mathematics is next in order of importance.

These results are parellel with other findings. Cromwell[1] asked graduates to rate the most valuable subjects studied in high school and found the following order, the most valuable being given first: English, mathematics, science.

## SUMMARY OF FINDINGS FROM EMPLOYEES

1. The evidence points to a period of job-hunting after graduation which was not productive. The elapse of time since graduation of those reporting varies from 1 to 13 years, with an average of 4.8 years. The length of time the present job has been held ranges from 1 to 10 years, for an average of 2.8 years.

2. The plan for life work has been altered in the majority of cases. Forty answered "yes" to this question

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[1]Cromwell, op. cit.

and thirty-seven said they had not changed plans. The two most common reasons given for changing are: "there were no jobs open in my line" and "one can't be too particular about a job these days." Most of those who answered in this manner have obtained work in related trades. Those who stated that they had not changed their plans said that persistence in trying to land the job they wanted finally brought results.

3. Few of the answers indicated that the men had worked for pay before graduation. Those who had worked were unanimous in saying that the work experience gave them 'a sense of responsibility' which helped in getting a job later.

4. English seemed important to the men on a job. They have found use for the ability to express themselves.

5. Most boys indicated a desire for more education. Nineteen have continued their studies in high school, extension school, or university.

6. On searching for a job after graduation, seventeen out of forty-one boys reported that outside contacts obtained the job. This coincides with Kitson's[1] finding that sixty per cent of those reporting obtained jobs through friends or relatives.

7. Ability to get on with the "boss" was important to most of the boys. This trait was not listed for checking in the questionnaire, but was written in as a necessary item by 32 per cent of the graduates who returned the blank.

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[1]Kitson, Harry D. I Find My Vocation. New York: McGraw Hill, (1931) 169.

## THE BEGINNER IN EMPLOYMENT

As a result of the interviews with employers and questionnaires from graduates, the beginner in employment will compositely represent the following characteristics: He will be one of twelve employees in the shop, eighteen years of age, in good health, and a high school graduate. In high school he will preferably have studied English, science, shop mathematics, and blue print reading. He will have had training in drafting, metal working, and woodworking. The type of shop in which he is to work will determine the extent and nature of shop skills needed.

He must have ambition, be reliable, exhibit common sense, be honest in all his actions, accurate in his work, and be able to follow instructions.

A comparison of the factors which determine employment can best be seen in Table XI.

TABLE XII

ORDER OF FACTORS WHICH DETERMINE EMPLOYMENT

| | Rated by the Employer | Rated by the Employee |
|---|---|---|
| PERSONAL QUALITIES | 1. Honesty | 1. Ambition |
| | 2. Common Sense | 2. Persistence |
| | 3. Reliability | 3. Courtesy |
| | 4. Ambition | 4. Able to get along with the "boss" |
| | 5. Ability to follow instructions | 5. Adaptability |
| | 6. Accuracy | 6. Accuracy |
| | 7. Self-Confidence | 7. Reliability |
| | 8. Personal Appearance | 8. Common Sense |
| | 9. Ability to get along with others | 9. Willingness to Work |
| | 10. Loyalty | 10. Good work habits |
| | 11. Observing | |
| | 12. Personality | |
| EDUCATION | High School diploma | High School diploma |
| Most Valuable Subjects: | | |
| | 1. English | 1. English |
| | 2. Shop Mathematics | 2. Geometry |
| | 3. Blue Print Reading | 3. Algebra |
| | 4. Science | 4. Shop Mathematics |
| | 5. Algebra | |
| | 6. Electricity | |
| Most Valuable Training or Skills: | | |
| | 1. Drafting | 1. Drafting |
| | 2. Metal Working | 2. Woodworking |
| | 3. Woodworking | 3. Machine Shop |
| | 4. Printing | 4. Auto Mechanics |
| Least Valuable - No report | | 1. History |
| | | 2. Modern Problems |

TABLE XIII

REQUIREMENTS FOR BEGINNING EMPLOYMENT IN DIFFERENT TRADES, AS DETERMINED FROM EMPLOYER-INTERVIEWS

| | Auto Mechanic | Blue Print Operator | Carpenter | Draftsman | Electrician (Wiremen) | Electrical Machinist | General Mechanic | Machinist | Plumber | Printer | Radio | Sheet Metal Worker | Upholsterer |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Age | 16-18 | 19-21 | 16-18 | 18-21 | 18-20 | 18 | 18-25 | 18-21 | 18 | 18-25 | 18-21 | 18-20 | 19 |
| Good Health | * | * | * | * | * | * | * | * | * | * | * | * | * |
| Education, H.S. | * | * | * | * | * | * | * | * | * | * | * | * | * |
| General Subjects: | | | | | | | | | | | | | |
| Algebra | | | | * | * | * | | * | | * | | * | |
| English | | | | * | * | * | * | * | * | * | | * | |
| Geometry | | | | | | | | * | * | | | | * |
| Shop Math. | * | | * | | * | * | | | * | | * | * | |
| Electricity | | | | | * | * | | | | | | | |
| Science | | | | | | * | | | | | | | |
| Blue Print Reading | * | * | * | * | * | * | * | * | * | | * | * | |
| Shop Subjects: | | | | | | | | | | | | | |
| Drafting | | * | * | * | * | * | * | * | * | * | * | * | |
| Woodworking | | | * | | * | | | | | | | * | * |
| Printing | | | | | | | | | | * | | | |
| Metal Working | * | | | | * | * | | * | * | | | * | |
| Auto Mechanics | * | | | | | | | | | | | | |

## CHAPTER III

## FINDINGS AND CONCLUSIONS

The questions which are given in the introduction for consideration are now taken up in order.

1. How are young men from the industrial arts courses occupied after graduation?

The occupational status of the graduates is distributed as follows: 642 of the 851 graduates, or 75.4 per cent, are at work; 38, or 4.5 per cent, are at school; 13, or 1.5 per cent, are in C. C. C., N. Y. A., or W. P. A.; 27, or 3.2 per cent, are in the Army or Navy; 8, or .9 per cent, are deceased; and 28, or 3.3 per cent, are unemployed. 95 of the 851 graduates, or 11.2 per cent, had moved away, or were not located. Probably many of these who have moved away are gainfully employed but there was no way of determining this fact.

Unemployment ranges highest for the class of 1930-31. The business cycle also reaches its lowest point during this year. In all probability, those who graduate during a period of business depression, and do not find employment, will remain permanently unemployed.

2. What kinds of jobs have these high school graduates succeeded in obtaining?

The distribution of different jobs at which the graduates are working is quite wide. One hundred three different jobs are found. A further break-down of some of the

groups would show more different jobs, but of the same type. Apprentices, for example, are working in fifteen different trades. It is to be noted that the apprentices are mostly found among the graduates of 1934 to 1938. Since an apprenticeship period is usually not more than four years, those who had entered upon their apprenticeship in earlier years would have completed their training period and would be listed as craftsmen at the time the survey was made.

Nearly one-fourth of all boys at work are working as unskilled laborers. Many of these jobs are in the packing houses, where unskilled laborers receive a relatively high hourly wage. This situation causes many boys to look nowhere else for a job, and often they have reported that they have accepted a job of this sort because it pays more at the beginning than a helper's job in a trade. Unfortunately, these unskilled jobs are of the dead-end type and offer no future.

3. What are the factors which determine beginning employment?

The factors which determine beginning employment apparently fall into two general groups: those factors relating to education and training and those factors relating to personal qualities. The factors relating to education are determined by the high school curriculum. A high school education, with a background of academic

subjects and shop training, appears to be adequate.

Those factors relating to personal qualities as determined from the questionnaires indicate that honesty is first to be considered by the employer, while it is not recognized at all as such by the employee. Ambition appears fourth in the list of traits desired by the employer, while the employee considers it the most important. The employee is more concerned with getting along with the boss. Accuracy is sixth on each list.

To develop the different personal qualities is a problem not alone for the schools, but for all the agencies which mould a person's life. Selvidge[1] says that "character traits are established through practice, not precepts; and they are revealed through actions, not words."

4. Do young men who graduate from the industrial arts courses find work in industry?

Graduates from the industrial arts courses do find jobs in industry. 40.6 per cent of those at work are engaged in skilled or semi-skilled jobs in industrial plants. Many are still engaged in unskilled occupations. Two factors which might account for this situation are (1) the low ebb of business in the past few years, and (2) the opportunity offered to graduates of South High School for a job in the packing plants.

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[1]Selvidge, Robert W. "Character Traits and Education," Industrial Education, XLI, November, 1939, 223.

5. Does it seem necessary to reorganize the industrial arts curriculum in order to meet the needs of industry and the employers?

The findings from the employers seem to indicate that they are satisfied with the type of boy who comes to them from South High School. Many of the employers prefer to train their employees to fit into their own particular organization. The employers want the School to provide training only in background subjects and in fundamental skills needed in industry. These subjects are already a part of the industrial arts curriculum.

The subjects which the graduates have found most helpful in industry are English, mathematics, drafting, and shop-work. These subjects are in the industrial arts curriculum. Twenty-four of the graduates have indicated that typing is needed in many jobs. Some have mentioned a need for bookkeeping. These subjects are available as electives for all students.

6. Could these graduates have had better counselling or better training, in view of the type of jobs they now hold?

The educational guidance supplied to the student in the high school probably does not begin early enough in his school life. The evidence points to a poor choice of electives, which might have been improved through more adequate guidance while the student was a freshman.

The training of the student is apparently meeting the needs of the jobs he now holds. Evidence for this is found in the summary of the questionnaires from graduates. The training which the graduate had received in high school was, according to his own report, the deciding factor in his obtaining and being able to hold the job.

## Other Considerations

Other questions which have arisen in the course of this study, and for which some evidence is available, are taken up in the paragraphs which follow.

What is the correlation between choice of course, choice of vocation, and actual vocation followed?

The spread of data in the original tabulation concerning this question is so wide that the results would be difficult to compute. The data from the questionnaires returned by the graduates give a more definite finding:

34.2 per cent obtained jobs directly related to their course followed in high school and to their vocational choice;

36.6 per cent obtained jobs according to their choice of vocation but not exactly parallel with the course followed in high school;

12.1 per cent have jobs related to their course in high school but not related to their vocational choice;

17.1 per cent have jobs which are in no way related to their choice of vocation or to their course in high school.

Is high school graduation a requirement for employment?

The consensus of opinion is that a high school diploma is necessary for entering employment. 83.3 per cent of the employers definitely listed this as a requirement. The men who are working agree 93.3 per cent that such is the situation.

Judd[1] found in a study of 51 industries, including 190 occupations, ranging from messenger boy to skilled mechanic and accountant, that 148 occupations had increased educational requirements. High school diplomas were required in 65 of the occupations, or in more than one-third of the total.

These findings show clearly the great advantage of the graduate over the non-graduate in obtaining the type of employment desired.

How stable is employment in the occupations now engaged in by high school graduates?

Of the graduates who supplied data on this question, 83 per cent are following the same job, or are in the same organization in which they started. The time since they graduated from school averages 4.8 years, and the

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[1]Judd, C. H. Problems of Education in the United States. New York: McGraw Hill Company, 1933, p. 16.

present jobs have been held an average of 2.8 years.

Fitch[1] found in 1935 that "out of 219 graduates of the Mechanic Arts High School (Boston) 173 were engaged in the same occupational grouping both five and ten years after graduation. There is, therefore, 79 per cent occupational stability among these graduates both five and ten years after graduation."

Is vocational choice while in high school sufficiently permanent to justify a continuation of training on this basis?

In the study made of South High graduates as reported in the questionnaires, 25.3 per cent were engaged in the same occupational grouping as their choice while in high school.

Fitch[2] found that "out of 219 graduates of the Manual Arts High School (Boston) 102 or 46 per cent were engaged in the type of work for which they expressed an interest while in high school ten years previously. 50 per cent of the boys who expressed an interest in skilled mechanic work were doing that form of work ten yeers later.

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[1]Fitch, John A. Vocational Guidance in Action. New York: Columbia University Press, 1935, p. 280

[2]Fitch, ibid.

Some of the trends which were observed in the course of the study are:

1. Apparently in years of depression which make it difficult to find jobs, more men are left permanently unemployed than in years when jobs are easier to find.
2. Choice of occupation varies with the trends of the times. Aviation was the choice of many in the years following Lindbergh's flight, but the interest in it has decreased sharply in more recent years.
3. The skilled occupations, which require some sort of apprenticeship, are more difficult to enter than a related occupation which does not require an apprenticeship.

# CONCLUSION

In conclusion, this study has revealed certain facts which will be of value in vocational advisement and placement of students who are in the industrial arts courses. Since this study deals with the occupational adjustment of 851 high school graduates, the results supply information of value to both teachers and students. The study has established that employment depends to a great extent upon physical qualifications, personal qualities, a high school education, and training in fundamental skills.

As a result of this study a check list has been worked out which provides a means of checking the abilities which a student possesses with the requirements of the particular job in which he is interested. These facts will be of value in helping students to choose wisely the courses which they will follow in high school. In this way they will be enabled, as graduates, to adjust themselves more quickly and more satisfactorily in the industrial world.

# APPENDIX

INDIVIDUAL CHECK SHEET

QUALIFICATIONS FOR BEGINNING EMPLOYMENT

Name of Applicant_____ Date_____

Name of Job_____Firm_____

| | | Employer establishes | Check by interviewer or school official | | |
|---|---|---|---|---|---|
| Physical Requirements | Age | _____ | Yes_____ | | No_____ |
| | Weight | _____ | _____ | | _____ |
| | Height | _____ | _____ | | _____ |
| | General Health | _____ | _____ | | _____ |
| Personal Qualifications | Honesty | _____ | Good___ | Fair___ | Poor___ |
| | Reliability | ___ | Good___ | Fair___ | Poor___ |
| | Accuracy | _____ | Good___ | Fair___ | Poor___ |
| | Common Sense | _____ | Good___ | Fair___ | Poor___ |
| | Ambition | _____ | Good___ | Fair___ | Poor___ |
| Educational Requirements | 8th grade | ____ | | | |
| | High School | _____ | | | |
| Subjects: | English | _____ | Good___ | Fair___ | Poor___ |
| | Mathematics | _____ | Good___ | Fair___ | Poor___ |
| | Science | _____ | Good___ | Fair___ | Poor___ |
| Training or Skills | Drafting | _____ | Good___ | Fair___ | Poor___ |
| | Woodwork | _____ | Good___ | Fair___ | Poor___ |
| | Mechanics | _____ | Good___ | Fair___ | Poor___ |
| | Electricity | _____ | Good___ | Fair___ | Poor___ |
| | Metal Shop | _____ | Good___ | Fair___ | Poor___ |

Connect evaluated answers with line graph to form vertical profile.

# NECESSARY QUALIFICATIONS FOR BEGINNING EMPLOYMENT

Firm_____ Address_____

Name of job_____ No. of employees_____

Type of product_____

Age preferred_____ Physical examination Yes_____ No_____

Required education: 8th grade____ High School___ Beyond H.S.___

Special subjects: Shop Math.___ Algebra___ Science___English___
Blue Print Reading___ Others_____

Training or skills: Drafting___ Printing___ Metal Working_____
Wood working___ Others_____

Do you look for certain definite personal qualities when hiring your employees? Yes_____ No_____

Please rank the following in order of your preference. Others may be added in the blank spaces.

| Qualities | Rank |
|---|---|
| 1. Personal Appearance | _____ |
| 2. Self-Confidence | _____ |
| 3. Ambition | _____ |
| 4. Reliability | _____ |
| 5. Honesty | _____ |
| 6. Common Sense | _____ |
| 7. Personality | _____ |
| 8. Ability to follow instructions | _____ |
| 9. Accuracy | _____ |
| 10. Ability to get along with others | _____ |
| 11. Observing | _____ |
| 12. Loyalty | _____ |
| 13. _____ | _____ |
| 14. _____ | _____ |
| 15. _____ | _____ |

Date_____ Person Reporting_____

# QUESTIONNAIRE TO GRADUATES OF SOUTH HIGH

Date of graduation_____19__ Course_____

What occupation did you expect to follow_____

How have you changed your plans since graduation_____

_____

Kind of job you have now_____

About how long have you worked at it_____

What other jobs have you had since graduation_____

_____

What subjects studied in High School have been of the most help to you on the job_____

What subjects have been of the least help_____

What additional subjects do you think you should have taken in High School_____

Have you done any additional school work; as night school, correspondence course, etc.____ If so, where_____

Please check on the list below the things which have helped you most in getting a job:

| | |
|---|---|
| Education _____ | School shop experience ____ |
| Physique _____ | Work experience _____ |
| Persistence _____ | Outside contacts _____ |
| Ambition _____ | School contacts _____ |

Add other items which you have found helpful_____

_____

LETTER TO ACCOMPANY QUESTIONNAIRE

TO GRADUATES

Dear Alumnus of South High School:

While you were at South High School, you took an Industrial Arts course and have since been working at a trade related to that course. If you will tell us what you have learned about job requirements, it will help in training boys who are still in school.

Since there are so many boys who have graduated from Industrial Arts in the last ten years, it will be difficult to see each one personally. Therefore, I am enclosing a blank which I hope you will have time to fill out and return to me.

Thanking you for your response, I am

Sincerely yours,

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